

#1

Access DB# 247807

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 1-9-2008
Art Unit: 1795 Phone Number 302-1333 Serial Number: 101530,349
Mail Box and Bldg/Room Location: 9C15 Results Format Preferred (circle): PAPER DISK E-MAIL
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Plz. see B1b.

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

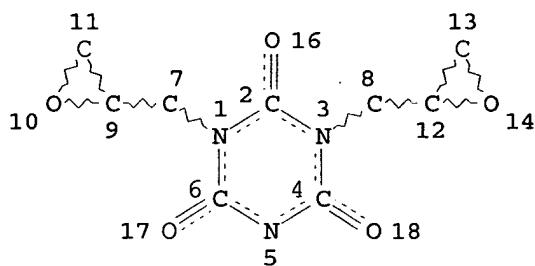
Plz. search for a reaction product of
compound of formula (10) with a compound
of formula (11) or (12).

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.
JAN 10 2008
Pat. & T.M. Office

=> d que 154

L11

STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

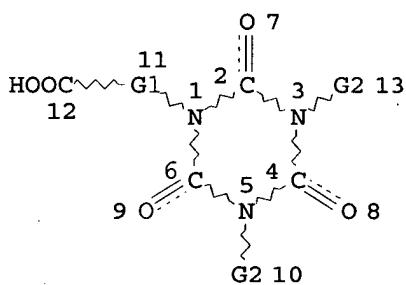
RSPEC I

NUMBER OF NODES IS 17

STEREO ATTRIBUTES: NONE

L12

STR



REP G1=(1-3) CH2

VAR G2=AK/CB

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DEFAULT ECLEVEL IS LIMITED

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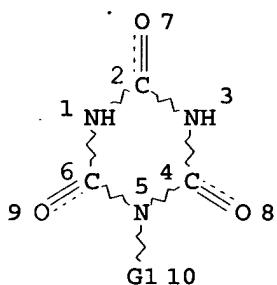
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STEREO ATTRIBUTES: NONE

L13

STR



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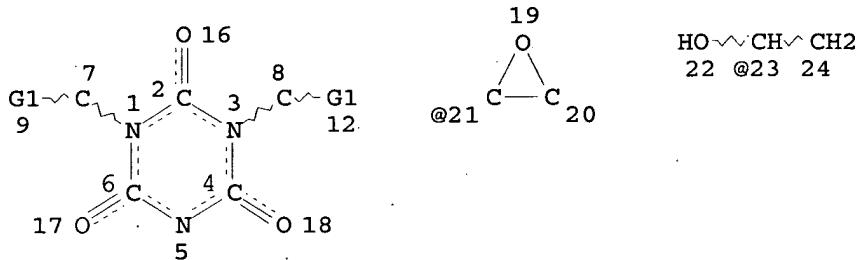
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GRAPH ATTRIBUTES:

RSPEC I
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STEREO ATTRIBUTES: NONE

L15 1139 SEA FILE=REGISTRY SSS FUL L11
 L18 4 SEA FILE=REGISTRY SUB=L15 SSS FUL (L12 OR L13)
 L21 STR



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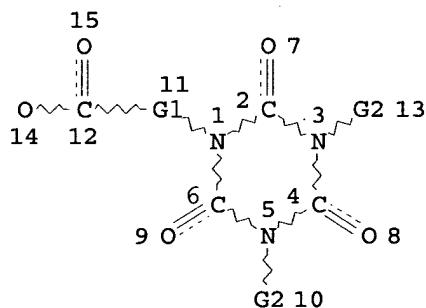
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GRAPH ATTRIBUTES:

RSPEC I
 NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L23 1395 SEA FILE=REGISTRY SSS FUL L21
 L25 STR



REP G1=(1-3) CH2

VAR G2=AK/CB

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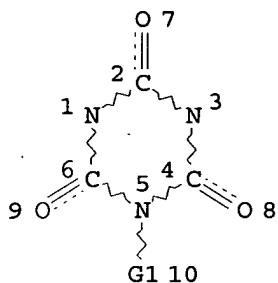
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GRAPH ATTRIBUTES:

RSPEC I
 NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

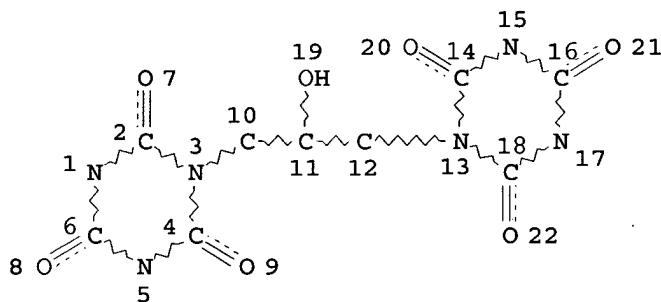
L26 STR



VAR G1=AK/CB
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC I
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
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 L30 3 SEA FILE=REGISTRY SUB=L23 SSS FUL L13
 L32 4 SEA FILE=REGISTRY SUB=L23 SSS FUL L25
 L38 7 SEA FILE=REGISTRY ABB=ON PLU=ON L18 OR L32 OR L30
 L46 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
 L52 2 SEA FILE=REGISTRY SUB=L28 SSS FUL L46
 L53 9 SEA FILE=REGISTRY ABB=ON PLU=ON L38 OR L52
 L54 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L53

=> d 154 ibib ed abs hitstr hitind

L54 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2004:333974 HCAPLUS
 DOCUMENT NUMBER: 140:365660
 TITLE: Composition for forming antireflection film for

INVENTOR(S) : lithography
 Kishioka, Takahiro; Mizusawa, Ken-ichi; Enomoto, Tomoyuki; Sakamoto, Rikimaru; Nakayama, Keisuke; Kawamura, Yasuo

PATENT ASSIGNEE(S) : Nissan Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 85 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004034148	A1	20040422	WO 2003-JP12875	20031008
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003271123	A1	20040504	AU 2003-271123	20031008
EP 1560070	A1	20050803	EP 2003-751376	20031008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1723418	A	20060118	CN 2003-80105388	20031008
TW 280459	B	20070501	TW 2003-92128174	20031009
PRIORITY APPLN. INFO.:				
			JP 2002-295777	A 20021009
			JP 2003-126886	A 20030502
			WO 2003-JP12875	W 20031008

ED Entered STN: 23 Apr 2004

AB A composition for forming an antireflection film comprises a compound, an oligomer or a polymer comprising a triazine-trione moiety having a hydroxyalkyl structure as a substitute on a nitrogen atom. The composition can provide an antireflection film which exhibits good absorptivity for a light having a wavelength suitable for use in the production of a semiconductor device, has high antireflection effect, and exhibits a dry etching rate greater than that of a photoresist layer.

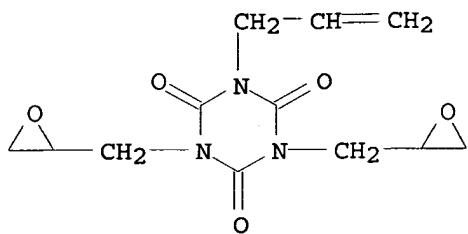
IT 681440-12-0P 681440-14-2P 681440-15-3P
 681440-16-4P 681440-17-5P 681440-19-7P
 681440-20-0P
 (oligomeric; photolithog antireflective film compns. containing)

RN 681440-12-0 HCPLUS

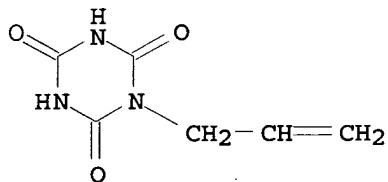
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

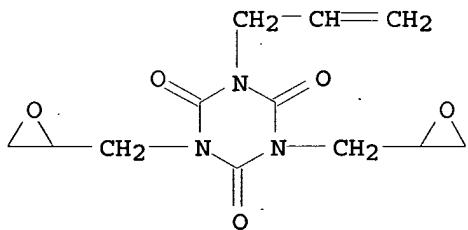
CRN 69731-45-9
 CMF C12 H15 N3 O5



CM 2

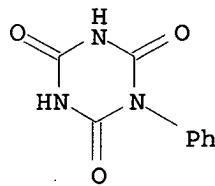
CRN 3030-60-2
CMF C6 H7 N3 O3RN 681440-14-2 HCAPLUS
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-phenyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9
CMF C12 H15 N3 O5

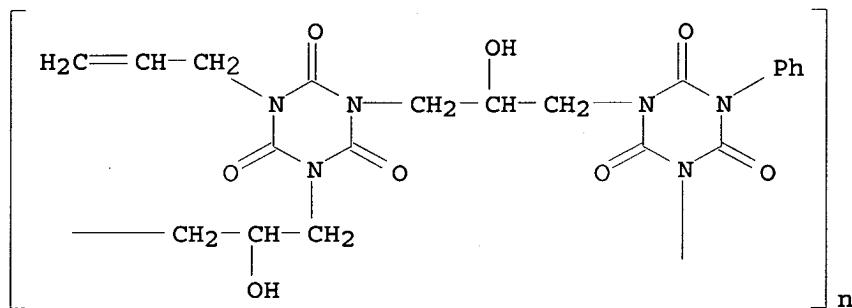
CM 2

CRN 5725-46-2
CMF C9 H7 N3 O3



RN 681440-15-3 HCPLUS

CN Poly[(dihydro-2,4,6-trioxo-5-phenyl-1,3,5-triazine-1,3(2H,4H)-diyl)(2-hydroxy-1,3-propanediyl)[dihydro-2,4,6-trioxo-5-(2-propenyl)-1,3,5-triazine-1,3(2H,4H)-diyl](2-hydroxy-1,3-propanediyl)] (9CI) (CA INDEX NAME)



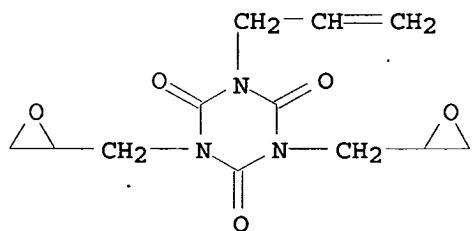
RN 681440-16-4 HCPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-, polymer with 1-methyl-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 69731-45-9

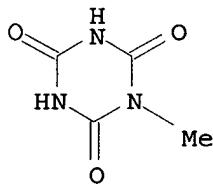
CMF C12 H15 N3 O5



CM 2

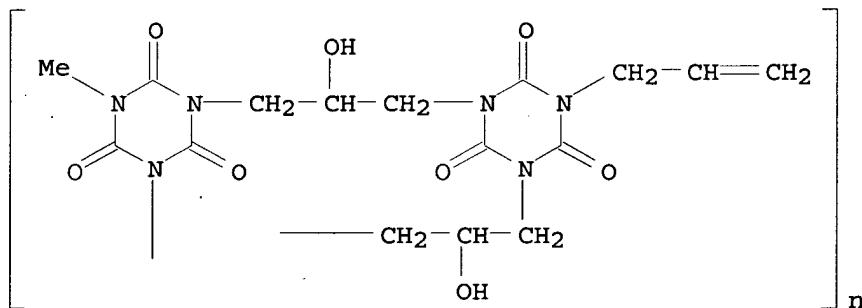
CRN 6726-47-2

CMF C4 H5 N3 O3



RN 681440-17-5 HCPLUS

CN Poly[(dihydro-5-methyl-2,4,6-trioxo-1,3,5-triazine-1,3(2H,4H)-diyl) (2-hydroxy-1,3-propanediyl) [dihydro-2,4,6-trioxo-5-(2-propenyl)-1,3,5-triazine-1,3(2H,4H)-diyl] (2-hydroxy-1,3-propanediyl)] (9CI) (CA INDEX NAME)



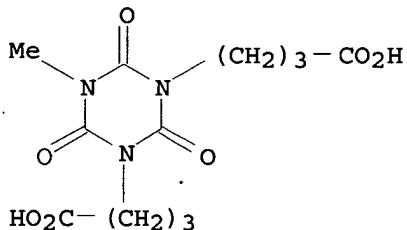
RN 681440-19-7 HCPLUS

CN 1,3,5-Triazine-1,3(2H,4H)-dibutanoic acid, dihydro-5-methyl-2,4,6-trioxo-, polymer with 1,3-bis(oxiranylmethyl)-5-(2-propenyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (9CI) (CA INDEX NAME)

CM 1

CRN 681440-18-6

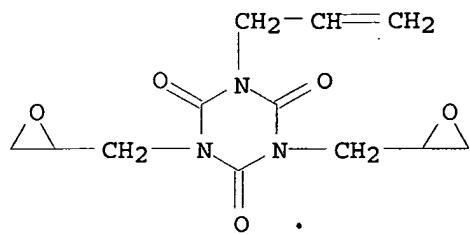
CMF C12 H17 N3 O7



CM 2

CRN 69731-45-9

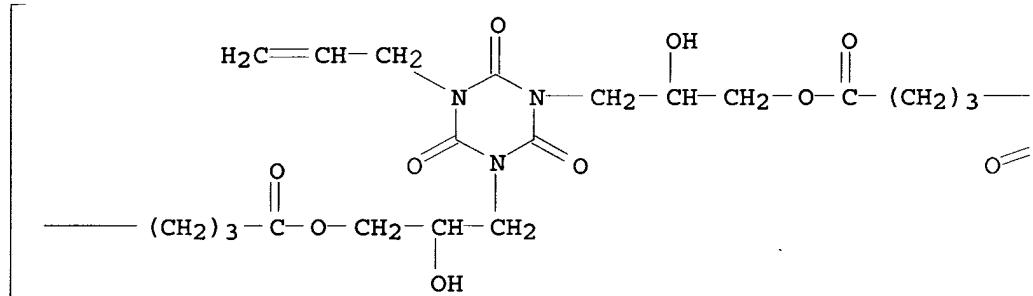
CMF C12 H15 N3 O5



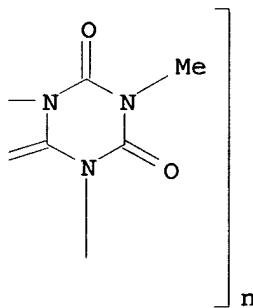
RN 681440-20-0 HCPLUS

CN Poly[(dihydro-5-methyl-2,4,6-trioxo-1,3,5-triazine-1,3(2H,4H)-diyl)(4-oxo-1,4-butanediyl)oxy(2-hydroxy-1,3-propanediyl)[dihydro-2,4,6-trioxo-5-(2-propenyl)-1,3,5-triazine-1,3(2H,4H)-diyl](2-hydroxy-1,3-propanediyl)oxy(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



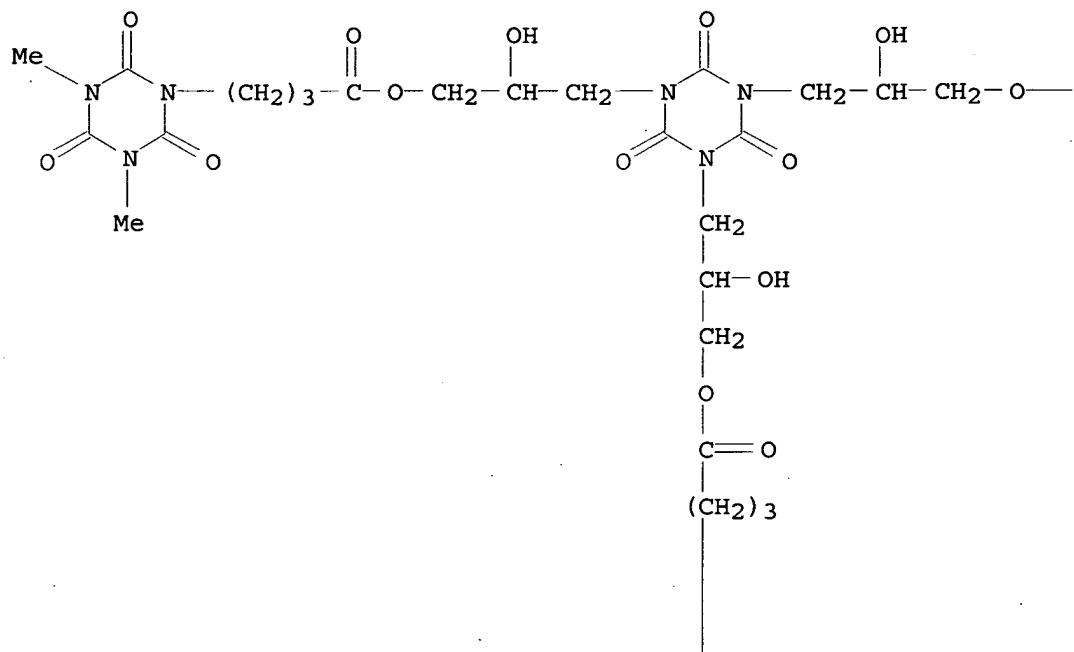
IT 681440-21-1P 681440-22-2P

(photolithog antireflective film compns. containing)

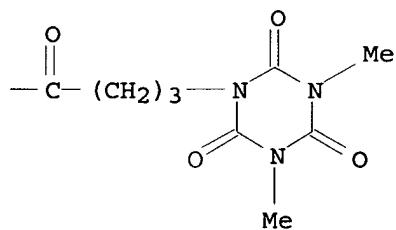
RN 681440-21-1 HCPLUS

CN 1,3,5-Triazine-1(2H)-butanoic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

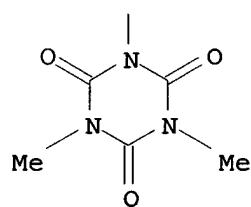
PAGE 1-A



PAGE 1-B



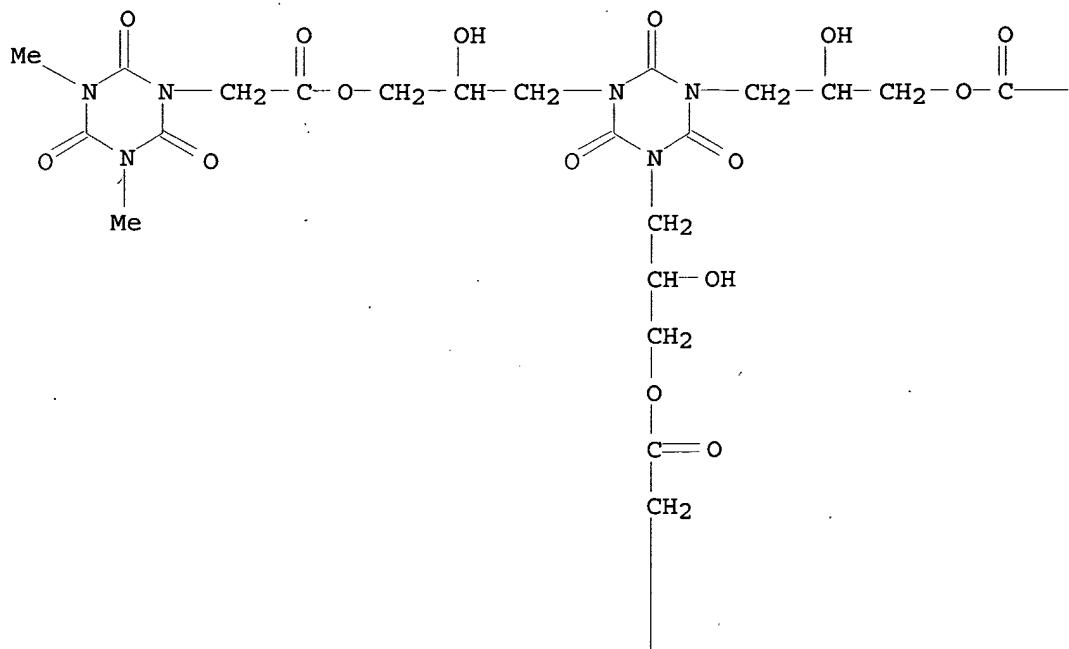
PAGE 2-A



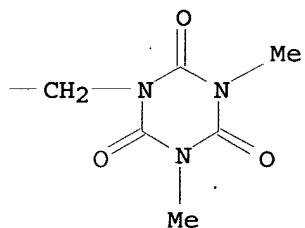
RN 681440-22-2 HCPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, tetrahydro-3,5-dimethyl-2,4,6-trioxo-, (2,4,6-trioxo-1,3,5-triazine-1,3,5(2H,4H,6H)-triyl)tris(2-hydroxy-3,1-propanediyl) ester (9CI) (CA INDEX NAME)

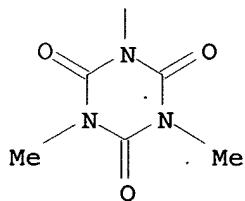
PAGE 1-A



PAGE 1-B



PAGE 2-A



IC ICM G03F007-11
 ICS H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 76
 IT 681440-09-5P 681440-10-8P 681440-11-9P 681440-12-0P
 681440-13-1P 681440-14-2P 681440-15-3P

681440-16-4P 681440-17-5P 681440-19-7P

681440-20-0P

(oligomeric; photolithog antireflective film compns. containing)

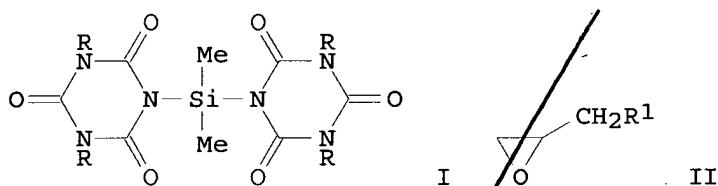
IT 681440-21-1P 681440-22-2P 681440-23-3P

(photolithog antireflective film compns. containing)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

=> d 155 1-2 ibib ed abs hitstr hitind

L55 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1987:477891 HCAPLUS
 DOCUMENT NUMBER: 107:77891
 TITLE: New organosilicon bis-derivatives of isocyanuric acid
 AUTHOR(S): Eritsyan, M. L.; Karamyan, R. A.; Khananashvili, L. M.
 CORPORATE SOURCE: Tbilis. Gos. Univ., Tbilisi, USSR
 SOURCE: Soobshcheniya Akademii Nauk Gruzinskoi SSR (1986), 123(3), 549-52
 CODEN: SAKNAH; ISSN: 0002-3167
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 OTHER SOURCE(S): CASREACT 107:77891
 ED Entered STN: 05 Sep 1987
 GI

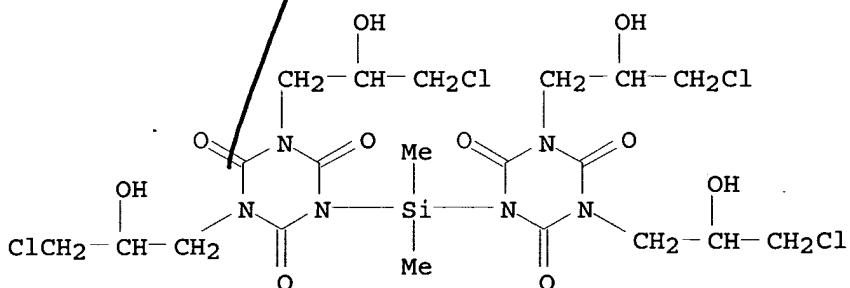


AB Silylbis(isocyanurate) I (R = H) was prepared in 85% yield by treating monosodium isocyanurate with Me₂SiCl₂. Treating I (R = H) with HCHO and oxiranes II (R¹ = Cl, PhO) gave 65-96% I [R = CH₂OH, CH₂CH(OH)CH₂R¹], which, on treatment with maleic anhydride gave 93-97% I [R = CH₂O₂CCH:CHCO₂H; CH₂CH(CH₂R¹)O₂CCH:CHCO₂H].

IT 109636-39-7P 109636-40-0P
 (preparation and reaction of, with maleic anhydride)

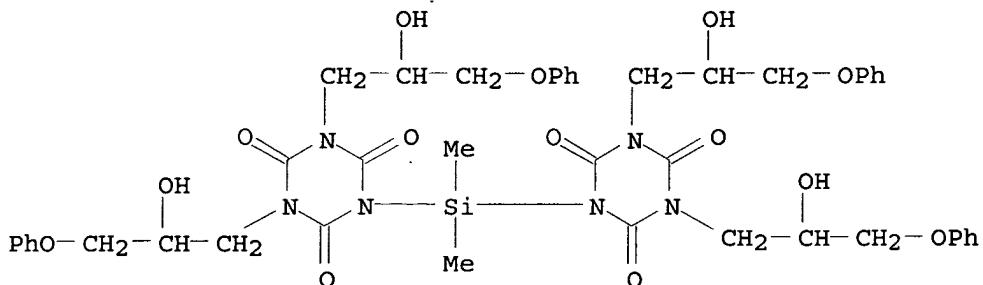
RN 109636-39-7 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,1'-(dimethylsilylene)bis[3,5-bis(3-chloro-2-hydroxypropyl)- (CA INDEX NAME)



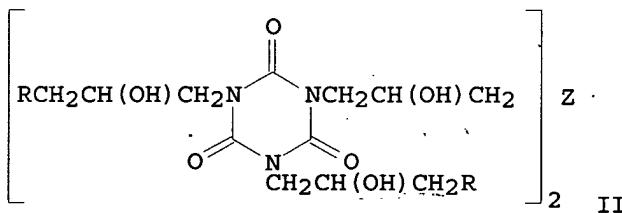
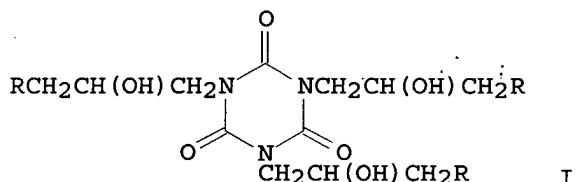
RN 109636-40-0 HCAPLUS

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, 1,1'-(dimethylsilylene)bis[3,5-bis(2-hydroxy-3-phenoxypropyl)- (CA INDEX NAME)



CC 29-6 (Organometallic and Organometalloidal Compounds)
IT 109636-38-6P 109636-39-7P 109636-40-0P
(preparation and reaction of, with maleic anhydride)

L55 ANSWER 2 OF 2 HCPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:140859 HCPLUS
DOCUMENT NUMBER: 86:140859
ORIGINAL REFERENCE NO.: 86:22131a,22134a
TITLE: Study of the hardening of oligoesters with unsaturated end groups containing an s-triazine ring
AUTHOR (S): Kutepov, D. F.; Borisova, L. N.; Skubin, V. K.; Basov, M. I.
CORPORATE SOURCE: Mosk. Khim.-Tekhnol. Inst. im. Mendeleeva, Moscow, USSR
SOURCE: Deposited Doc. (1974), VINITI 2034-74, 15 pp.
Avail.: BLLD
DOCUMENT TYPE: Report
LANGUAGE: Russian
ED Entered STN: 12 May 1984
GI



AB · Homopolymer. of a triazine-containing acrylate (I, $R = \text{CH}_2:\text{CHCO}_2$) [38817-87-7] and methacrylate (I, $R = \text{CH}_2:\text{CMeCO}_2$) [54316-76-6], and of their ethylene glycol-modified analogs [II (R = $\text{CH}_2:\text{CHCO}_2$, Z = $\text{OCH}_2\text{CH}_2\text{O}$) [62202-54-4] and II (R = $\text{CH}_2:\text{CMeCO}_2$, Z = $\text{OCH}_2\text{CH}_2\text{O}$) [62228-34-6]] or diethylene glycol-modified analogs [II [R = $\text{CH}_2:\text{CHCO}_2$, Z = $(\text{OCH}_2\text{CH}_2)\text{O}$] [62202-55-5] and II [R = $\text{CH}_2:\text{CMeCO}_2$, Z = $(\text{OCH}_2\text{CH}_2)\text{O}$] [62202-56-6]] followed 1st

order kinetics with variable rate consts. The observed decrease in the rate constant in the course of the polymerization was not accompanied by a change in the reaction order and indicated that at a given conversion stage the propagation step became diffusion controlled. This autore retardation occurred at lower conversions for the methacrylates than for the acrylates. The optimum conditions of the polymerization were determined (best catalyst methyl ethyl ketone peroxide [1338-23-4]). Comparison of thermal stability of the resulting polymers with that of TGM-3 and MGF-9 indicated beneficial effects from the presence of the triazine rings.

IT 62202-54-4 62202-55-5 62202-56-6

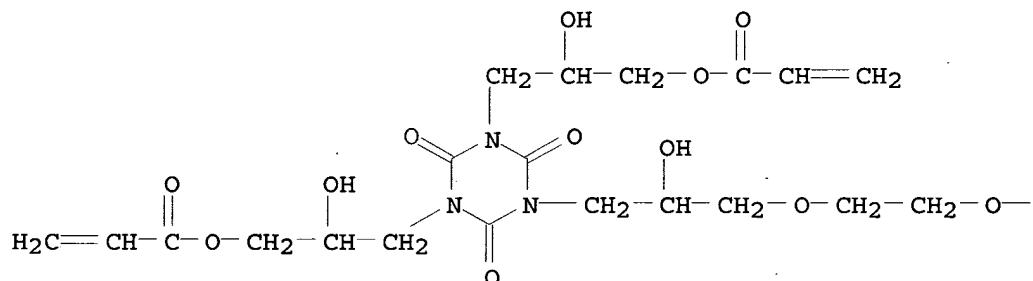
62228-34-6

(polymerization of, kinetics of)

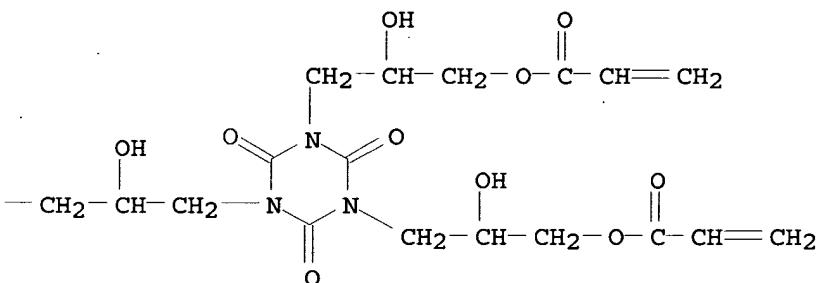
RN 62202-54-4 HCAPLUS

CN 2-Propenoic acid, 1,2-ethanediylbis[oxy(2-hydroxy-3,1-propanediyl)][(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyyl)bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



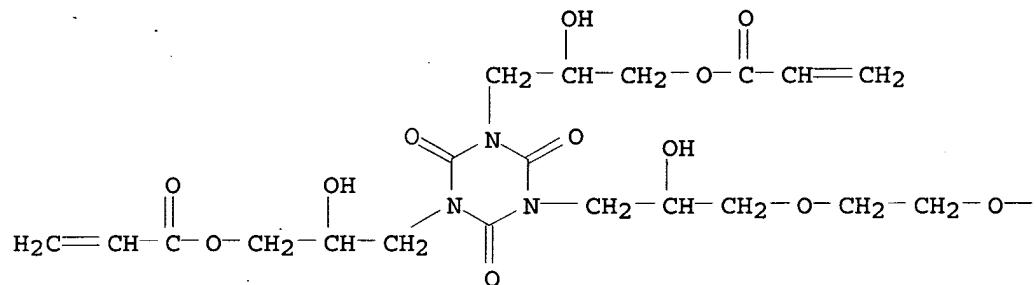
PAGE 1-B



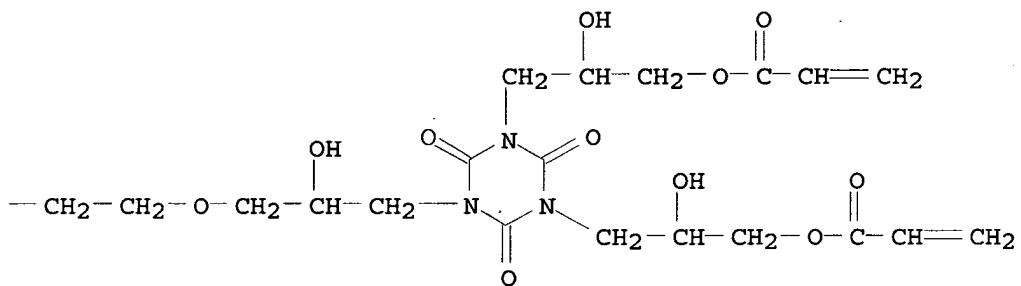
RN 62202-55-5 HCAPLUS

CN 2-Propenoic acid, [oxybis[2,1-ethanediyl]oxy(2-hydroxy-3,1-propanediyl)][(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyyl)bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



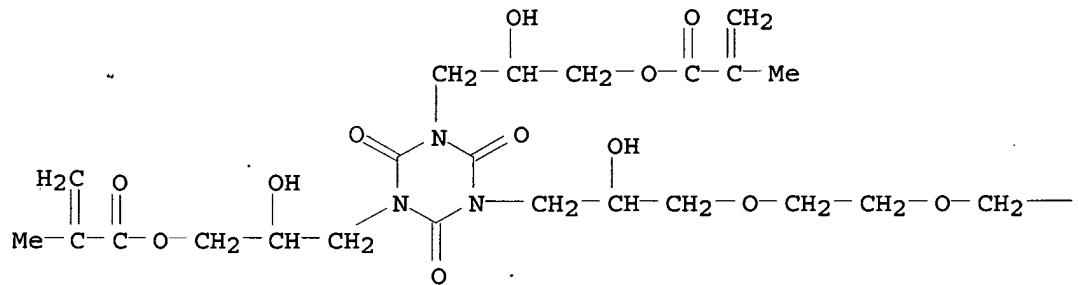
PAGE 1-B



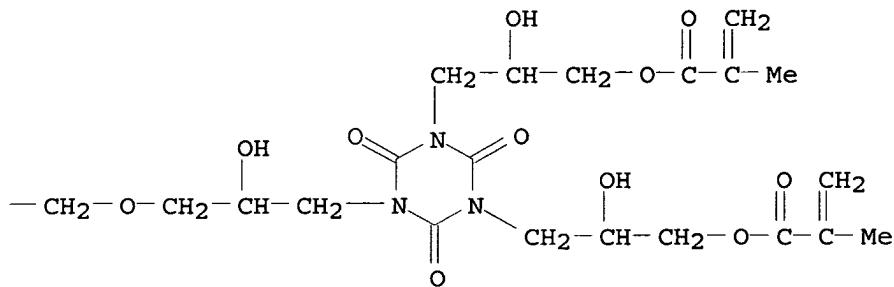
RN 62202-56-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [oxybis[2,1-ethanediyl]oxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyyl)bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

PAGE 1-A



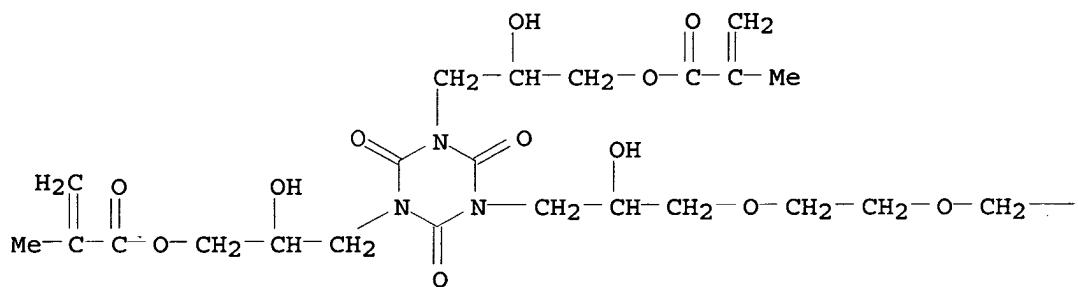
PAGE 1-B



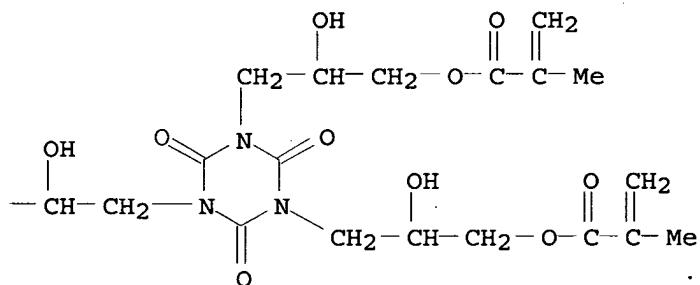
RN 62228-34-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediylbis[oxy(2-hydroxy-3,1-propanediyl)(2,4,6-trioxo-1,3,5-triazine-5,1,3(2H,4H,6H)-triyl)bis(2-hydroxy-3,1-propanediyl)] ester (9CI) (CA INDEX NAME)

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PAGE 1-B



CC 36-6 (Plastics Manufacture and Processing)

IT 38817-87-7 54316-76-6 62202-54-4 62202-55-5
62202-56-6 62228-34-6
(polymerization of, kinetics of)

=> d his nofile

(FILE 'HOME' ENTERED AT 10:39:43 ON 11 JAN 2008)

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 E US20060290429/PN, PRN, AP
 E JP2002-295777/PRN, PN, AP
 L2 1 SEA ABB=ON PLU=ON JP2002-295777/PRN
 SEL RN

FILE 'REGISTRY' ENTERED AT 10:41:48 ON 11 JAN 2008

L3 17 SEA ABB=ON PLU=ON (2451-62-9/BI OR 681440-09-5/BI OR
 681440-10-8/BI OR 681440-11-9/BI OR 681440-12-0/BI OR
 681440-13-1/BI OR 681440-14-2/BI OR 681440-15-3/BI OR
 681440-16-4/BI OR 681440-17-5/BI OR 681440-19-7/BI OR
 681440-20-0/BI OR 681440-21-1/BI OR 681440-22-2/BI OR
 681440-23-3/BI OR 681440-24-4/BI OR 681440-25-5/BI)

L4 STR
 L5 50 SEA SSS SAM L4
 L6 STR
 L7 1 SEA SSS SAM L4 AND L6
 L8 STR L6
 L9 STR L6
 L10 0 SEA SSS SAM L4 AND (L8 OR L9)
 L11 STR L4
 L12 STR L8
 L13 STR L9
 L14 50 SEA SSS SAM L11
 L15 1139 SEA SSS FUL L11
 L16 9 SEA ABB=ON PLU=ON L15 AND L3
 SAV L15 LEE349/A
 L17 0 SEA SUB=L15 SSS SAM (L12 OR L13)
 L18 4 SEA SUB=L15 SSS FUL (L12 OR L13)
 L19 4 SEA ABB=ON PLU=ON L18 AND L3

FILE 'HCAPLUS' ENTERED AT 10:59:02 ON 11 JAN 2008

L20 1 SEA ABB=ON PLU=ON L19

FILE 'REGISTRY' ENTERED AT 10:59:13 ON 11 JAN 2008

L21 STR L11
 L22 50 SEA SSS SAM L21
 L23 1395 SEA SSS FUL L21
 L24 14 SEA ABB=ON PLU=ON L23 AND L3
 SAV L23 LEE349A/A
 L25 STR L12
 L26 STR L13
 L27 50 SEA SUB=L23 SSS SAM (L25 OR L26)
 L28 1395 SEA SUB=L23 SSS FUL (L25 OR L26)
 L29 0 SEA SUB=L23 SSS SAM L13
 L30 3 SEA SUB=L23 SSS FUL L13
 L32 4 SEA SUB=L23 SSS FUL L25
 L33 14 SEA ABB=ON PLU=ON L24 NOT NAPTH?
 L34 12 SEA ABB=ON PLU=ON L24 NOT NAPHTH?
 L35 10 SEA ABB=ON PLU=ON L34 NOT BENZOIC?
 L36 9 SEA ABB=ON PLU=ON L35 NOT C12 H15 N3 O6/MF

FILE 'HCAPLUS' ENTERED AT 11:31:54 ON 11 JAN 2008

L37 1 SEA ABB=ON PLU=ON L36

FILE 'REGISTRY' ENTERED AT 11:34:12 ON 11 JAN 2008

L38 7 SEA ABB=ON PLU=ON L18 OR L32 OR L30
L39 2 SEA ABB=ON PLU=ON L36 NOT L38
L40 STR L13
L41 50 SEA SUB=L28 SSS SAM L40
L42 19192 SEA ABB=ON PLU=ON 2 46.492/RID
L43 13 SEA ABB=ON PLU=ON L28 AND L42
L44 10 SEA ABB=ON PLU=ON L43 NOT L36
L45 6 SEA ABB=ON PLU=ON L44 NOT 1-100/M
L46 STR
L47 0 SEA SUB=L28 SSS SAM L46
L48 STR L21
L49 0 SEA SUB=L28 SSS SAM L48
L50 STR L48
L51 50 SEA SUB=L23 SSS SAM (L21 AND L50)
L52 2 SEA SUB=L28 SSS FUL L46
L53 9 SEA ABB=ON PLU=ON L38 OR L52

FILE 'HCAPLUS' ENTERED AT 12:31:46 ON 11 JAN 2008

L54 1 SEA ABB=ON PLU=ON L53
L55 2 SEA ABB=ON PLU=ON L45
L56 2 SEA ABB=ON PLU=ON L55 NOT L54